

Amendments to the Drawings:

The attached 7 sheet of drawings includes replacement drawings for FIGS 1 - 7. These sheets, which includes FIGS. 1 to 7, replace the original sheets including FIGS. 1 to 7.

REMARKS

The above-identified patent application has been amended and Applicants respectfully request the Examiner to reconsider and again examine the claims as amended.

Claims 1 and 3 – 19 are pending in the application. Claims 1 and 3 - 19 were rejected. Claims 1, 3 and 4 are amended herein.

Applicants note that corrected drawings were required and enclosed herein are replacement sheets of corrected drawings. Approval of the corrected drawings is respectfully requested.

The Examiner rejected Claims 1, 5, 7-10, 12, 13 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Katsuki (6,798,447) in view of Takemoto (5,065,246). The Examiner rejected Claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Katsuki in view of Takemoto and further in view of Owada (US 2002/0006281). The Examiner rejected Claims 6, 15, 17 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Katsuki in view of Owada (US 2002/0006281). Claims 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Katsuki in view of Takemoto, US Patent No. 5,065,246 and further in view Owada, US 2002/0006281. Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Katsuki in view of Takemoto and further in view Morimoto, US Patent 6,487,366. Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamasaki, US Patent 5,138,360 in view of Novak, US 2002/0141658 and further in view Katsuki.

Katsuki teaches a technique for compressing data using data compression and checking to see if the size of the data compression is below a predetermined value (Step S22) and, if not, in

turn, decreasing the depth of view (Step S23), decreasing shutter speed and defocusing the image to help reduce the size of the data value. It is not describing nor suggesting a technique for focusing, but teaching a technique for controlling the size of a data file and preventing it from getting larger than a target data amount.

Takemoto teaches a technique (operation means) of a coding operation for using the relationship between the coding coefficient of a discrete cosine transform and the focus to drive a step motor to control the step motor to control the focus of the image input. As taught at Col. 2, lines 33 - 47, Takemoto utilizes an image pickup system, the compression means, the operation means and the adjusting means to form the automatic focusing system.

Owada teaches a technique for looking at contrast that can be used for focus detection.

Applicants invention includes a compression engine to provide a compressed data file, comparing the size of each compressed data file and moving the lens to a position that creates the largest data file to bring the lens into focus. This technique can be implemented with minimal costs and not does require the additional elements used in Katsuki and Takemoto.

It is respectfully submitted that Claim 1, as amended, is patentable over Katsuki in view of Takemoto, since Katsuki in view of Takemoto neither describe nor suggest "digitally compressing the digital image of an image at a first instance of time to provide a compressed file having a file size; digitally compressing the digital image of an image at a second instance of time to provide a compressed file having a file size; and comparing the file size of the compressed files and moving a lens to maximize the size of the compressed file to bring the lens into focus."

Independent Claim 5 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest "... a digital processor to compare the size of each compressed data file and to provide a control signal to the motor to move the lens to a position that creates the largest compressed data file."

Katsuki teaches a technique for compressing data using data compression and checking to see if the size of the data compression is below a predetermined value, not to move the lens to maximize the size of the compressed data file. Takemoto teaches a technique (operation means) of a coding operation for using the relationship between the coding coefficient of a discrete cosine transform and the focus to drive a step motor to control the step motor to control the focus of the image input. Neither teach the present invention.

Independent Claim 6 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest "... comparing the size of the data file of the first image with the size of the data file of the second image and moving the lens in the direction of the position providing the larger file size."

Independent Claim 7 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest "... a size signal indicative of the size of the compressed digital signal; and a controller that controls said driver to locate said lens at a position where said size signal becomes greatest."

Independent Claim 15 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest "... digitally compressing a digital image of the test target to provide a compressed image file having a file size until the file size is maximized; and fixing the lens within the unit under test at the position that provides the maximum file size."

Independent Claim 16 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest "... compressing a digital image corresponding to each region and recording the relative size of the compressed image for each region; and adjusting the location of the sensor relative to the lens to set axial and tilt adjustments such that the relative size of the compressed image for each region is maximized."

Independent Claim 17 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest the method of "... capturing a portion of a first image passing through a lens and digitally compressing and recording the size of the resulting data file; moving the lens to another position; capturing a portion of a second image passing through the lens and digitally compressing and recording the size of the resulting data file; and comparing the size of the data file of the first image with the size of the data file of the second image to determine which lens position provides a larger file size.

The references taken separately or in combination neither describe nor suggest the range finder as claimed in claim 19 having " ... said driver to locate said lens at a position where said size signal becomes greatest, said position corresponding to a specific range."

The remaining Claims depend from an independent Claim and cite additional elements or steps, hence they too are allowable for analogous reasons.


Applicants have submitted herewith a Petition for an Extension of Time for three months to cover the costs of the petition. Authorization to charge Daly, Crowley, Mofford & Durkee, LLP Deposit Account No. 50-0845 for this cost or any excess fees due or credit any overpayment is hereby given.

Accordingly, re-examination and reconsideration are requested in view of the above amendment and remarks.

Respectfully submitted,

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DALY, CROWLEY, MOFFORD & DURKEE, LLP

By:   
Donald F. Mofford  
Reg. No. 33,740  
Attorney for Applicant(s)  
354A Turnpike Street - Suite 301A  
Canton, MA 02021-2714  
Tel.: (781) 401-9988, Ext. 13  
Fax: (781) 401-9966  
*dfm@dc-m.com*